

SPEECH

## Taking account of nature, naturally

### **Speech by Frank Elderson, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, at the tenth Green Finance Forum “Innovate in Nature”**

*Frankfurt am Main, 19 November 2024*

Thank you for inviting me to speak at the opening of the tenth Green Finance Forum. I fully subscribe to the theme of today’s forum, given how vitally important it is to “innovate in nature”. Especially because in many ways nature is still not accounted for in policies, regulation and risk management, but it should be, considering its vital importance for the economy – including the financial system. This morning I will outline how the relevance of nature is being confirmed by incoming research and how the European Central Bank (ECB) is acting on this to deliver on its mandate of maintaining price stability and preserving the safety and soundness of banks.

A thriving natural environment provides many benefits that sustain human well-being and the global economy. Think of fertile soils, pollination, timber, fishing stocks, clean water and clean air.

Unfortunately, intensive land use, climate change, pollution, overexploitation and other human pressures are rapidly and seriously damaging our natural resources. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services already sounded the alarm back in 2019, shortly before the outbreak of the pandemic.<sup>[1]</sup> The degradation of nature is primarily caused by human activity and is being made worse by global heating. In addition to the depletion of non-renewable resources, natural inputs to the economy that are renewable are also increasingly being degraded. Scientists have calculated that humanity is using natural resources 1.7 times faster than ecosystems can regenerate them – in other words, we are consuming resources equivalent to 1.7 planet Earths.

This nature loss poses a serious risk to humanity as it threatens vital areas, such as the supply of food and medicine. Such threats are also existential for the economy and the financial system, as our economy cannot exist without nature.<sup>[2]</sup> One of the papers presented at the annual ECB Forum on Central Banking in Sintra, Portugal, in July of this year shows how biodiversity loss can cause losses to economic output while at the same time decreasing the resilience of that output to future biodiversity losses.<sup>[3]</sup> However, in practice, at least thus far, the contribution of the inputs nature provides to the economy is rarely measured directly in statistics like GDP.

Central banks and supervisors like the ECB need to gain a better understanding of just how vulnerable the economy and the financial system are to nature degradation. We need to incorporate nature into the analysis of the drivers of economic development and the assessment of future productive capacity.

<sup>[4]</sup> Degradation of nature can impair production processes and consequently weaken the creditworthiness of many companies, which might in turn impair loans extended by banks.

## How nature affects the economy

As is the case with climate change, nature affects companies and banks via two main channels: physical risks and transition risks. Physical risks may be acute risks, such as increasingly severe natural disasters, or chronic risks, such as dwindling ecosystems. The effects could include falling crop yields owing to a decline in pollinating insects or the degradation of agricultural land. The scarcity of natural products could lead to supply-side shocks for the pharmaceutical industry or make some tourist destinations less attractive.

Nature loss can also amplify the transition risks of banks and their borrowers. Governments are stepping up their efforts to protect the environment: the UN Convention on Biological Diversity set global targets in 2022, including the conservation by 2030 of at least 30% of the world's lands, inland waters, coastal areas and oceans.<sup>[5]</sup> Such government measures could lead to changes in regulation and policy, limiting the exploitation of natural resources or banning certain environmentally harmful products. Technological innovation, new business models and changes in consumer or investor sentiment could also lead to transition risks and transition costs as companies are forced to adapt. Some established business models could disappear, while others might become too expensive and lose market share.

At the ECB, we looked at the dependence on nature of more than 4.2 million individual companies accounting for over €4.2 trillion in corporate loans.<sup>[6]</sup> We assessed how dependent companies and banks in the euro area are on the various benefits that humanity obtains from nature – experts call this concept “ecosystem services”. Examples of the services that ecosystems provide are products such as food, drinking water, timber and minerals; protection against natural hazards; and carbon uptake and storage by vegetation.

To assess the associated physical risk, we assessed the extent to which companies financed by euro area banks are dependent on ecosystem services. The principal assumption behind this assessment is that greater dependence on ecosystem services is likely to result in greater exposure to ecosystem degradation. If nature degradation continues, economic activities dependent on ecosystem services will be affected by issues such as supply chain disruptions, which have an impact on prices and ultimately on inflation. Moreover, reduced turnover could result in defaults and, as a consequence, losses for the banks that lend to these companies. This could ultimately lead to financial stability concerns.

Our analysis shows that euro area companies are significantly exposed to several ecosystem services, both directly and via their supply chains. The most important services are mass stabilisation and erosion control, surface and ground water supply, flood and storm protection, and carbon uptake and storage. Indirect dependency via supply chains is particularly significant for sectors such as agriculture, manufacturing and wholesale, and the retail trade.

Our assessment shows that in the euro area, around three million individual companies are highly dependent on at least one ecosystem service. Severe losses of functionality in the relevant ecosystem would translate into critical economic problems for those companies. We also found that almost 75% of bank loans to companies in the euro area are granted to companies that are highly dependent on at least one ecosystem service. We observed only moderate differences between countries, as indirect

supply chain dependencies offset smaller direct dependencies, especially in small and open economies.

## **Accounting for nature in central banking and supervision**

The results of our research confirm that the European economy is highly dependent on ecosystem services and that these risks can spread to the financial system, potentially triggering instability. If nature degradation continues at its current pace, companies will be affected and banks' credit portfolios will deteriorate. This is why we expect banks under our supervision to manage all material nature-related risks, consistent with the supervisory guide that we published in 2020 with expectations about banks' risk management practices for both climate-related and environmental risks.<sup>[7]</sup> It is also the reason the ECB has made nature one of the focus areas of its climate and nature plan for 2024 and 2025.

Our ongoing work confirms the profound impact of nature degradation on the economy, including the financial system and price stability, which mirrors that of climate change. Nature degradation and climate change are therefore both relevant to our mandate and our monetary policy strategy. From my point of view, the ECB's upcoming assessment of the monetary policy strategy provides an opportunity to confirm the relevance of nature degradation and climate change for monetary policy in the euro area.

An integrated approach to climate and nature is critical, because they are interconnected and amplify the effects of physical and transition risks. Given the high level of uncertainty regarding impacts, non-linearities, tipping points and irreversibility, gauging nature-related risks is complex. We cannot do this alone. Scientific input is needed to learn more about the transmission channels to our economies.

Work is progressing at the international level. The Network for Greening the Financial System (NGFS) – a network of 141 central banks and supervisors from around the world – had already acknowledged the relevance of nature-related risks to the mandates of these institutions back in March 2022.<sup>[8]</sup> The NGFS has since developed a conceptual framework offering central banks and supervisors a common understanding of nature-related financial risks and a principle-based risk assessment approach.<sup>[9]</sup> Moreover, in July this year the NGFS published a report on nature-related litigation to raise awareness among financial institutions, central banks and supervisors.<sup>[10]</sup> The report highlighted that while nature-related litigation is still in its infancy, the number of cases is expected to grow rapidly. This trend underlines the real risk of doing too little: for governments, companies, banks, central banks and supervisors.

Policymakers, regulators and supervisors are in fact taking action. The Financial Stability Board recently took stock of supervisory and regulatory initiatives among its members and established that a growing number of financial authorities are considering the potential implications nature-related risks have for the financial sector.<sup>[11]</sup> This work must continue. International fora must ensure that nature-related considerations are fully integrated into regulation and supervision, alongside ongoing efforts to account for climate-related considerations. This starts with identifying exposures and vulnerabilities to nature-related risks. This does not mean that economists should start counting ants in Aragon, butterflies in Bavaria or worms in Wallonia. Instead, economists must develop the means to transpose

insights from environmental science into variables of economic interest like growth, inflation and financial risks.

Since our economy relies on nature, destroying nature means destroying the economy. Preventing the destruction of nature is the responsibility of elected governments, as they are the ones who make environmental policies. For their part, central banks and supervisors have to take nature-related risks into account in the pursuit of their mandates, just as they do with any other factors that are vitally important to price stability and the safety and soundness of banks. Naturally, at the ECB we are committed to doing exactly that. Naturally, within our mandate. Naturally, because of our mandate.

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